

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

1595 Wynkoop Street DENVER, CO 80202-1129 Phone 800-227-8917 http://www.epa.gov/region08

Ref: 8P-W-DW

SEP 3 0 2015

### <u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Ms. Ganelle Edwards, Owner Nordic Ranches Water, LLC. P.O. Box 5069 Etna, WY 83118

Re:

2015 Sanitary Survey Report PWS ID#: WY5601418 C

Dear Ms. Edwards:

Enclosed is a report prepared for the U. S. Environmental Protection Agency (EPA) following a sanitary survey of the above-referenced water system on June 29, 2015. Please note each significant deficiency listed at the beginning of the report. To avoid receiving a violation, you must correct each identified significant deficiency and submit documentation of the corrective action to the EPA within 6 months from receipt of this letter and sanitary survey report.

If you will be unable to meet this standard corrective action timeframe, you must submit a written justification and proposed completion schedule to the EPA within 30 days from receipt of this letter. Each significant deficiency for this water system is listed below:

### GROUND WATER RULE SIGNIFICANT DEFICIENCIES

Significant deficiencies for ground water systems are defined as defects in the design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the EPA determines to be causing, or to have the potential for causing, the introduction of contamination into the water delivered to consumers.

1) Well ID: WL01 - Well #1, Well #2, and Well #4

Lack of a sanitary seal on the well casing. (see photos #1, #2, and #3)

To prevent contamination of the well, the well must be fitted with a functioning sanitary seal that is tightly bolted does not allow contamination to enter the well.

- 2) Gravity Tank ID: ST01 & ST02 Storage Tanks 4x10K and StorageTanks 3x10K Combined Overflow on finished water storage tank discharges at improper height\*. (see photo #4) Overflow must be piped to an elevation between 12 and 24 inches above the ground surface and discharge over a drainage inlet structure, splash plate, or engineered rip-rap.
- 3) Gravity Tank ID: ST01 & ST02 Storage Tanks 4x10K and Storage Tanks 3x10K Combined Overflow on finished water storage tank improperly constructed\*. (see photo #5) Overflow must discharge over a drainage inlet structure, splash plate, or engineered rip-rap.
- 4) Gravity Tank ID: ST01 Storage Tanks 4x10K
   Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #6)
   Below Ground Tanks (buried or partially buried): The tank hatch must be elevated a minimum of 24 inches above the top of the tank surface or ground surface, whichever is higher.
- 5) Gravity Tank ID: ST02 Storage Tanks 3x10K
  Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #7)
  Below Ground Tanks (buried or partially buried): The tank hatch must be elevated a minimum of 24 inches above the top of the tank surface or ground surface, whichever is higher.
- 6) Gravity Tank ID: ST01 &ST02 Storage Tanks 4x10K and Storage Tanks 3x10K Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #8) The tank hatch must be fitted with a solid *watertight* cover which extends down around the frame at least two inches.
- 7) Low pressure or loss of pressure (less than 20 psi)\*.

  The PWS reported that the pressure coming off the tanks was 20-25 psi under normal conditions and that there were service connection(s) near the tanks where the residents have installed booster pumps on the customer's side of the meter. It is likely that pressures during peak flow may drop below 20 psi. Presently, some areas of the distribution system have pressure less than 20 psi. This low pressure creates significant risk for backflow and system contamination. In order to correct this significant deficiency, you must identify the cause(s) of the low pressure and provide documentation of how it was corrected.

You must correct each significant deficiency and provide a completed Correction Notice with photos of each correction within 6 months from receipt of this letter and sanitary survey report. The Significant Deficiency Correction Notice is enclosed and can also be found at the following website <a href="http://www2.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms">http://www2.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms</a> and by selecting the Sanitary Survey link. To avoid receiving a violation, please provide this documentation to:

Ms. Gail Franklin, Ground Water Rule Manager EPA Region 8, 8P-W-DW 1595 Wynkoop St. Denver, CO 80222

Email: franklin.gail@epa.gov

Phone: 1-800-227-8917, extension 312-6497

Additionally, include a written response to the respective Wyoming Department of Environmental Quality District Engineer (WY DEQ) listed on the second page of the survey report, prior to making any improvements, if any of the aforementioned deficiencies are followed by an asterisk (\*). The asterisk indicates that a WY DEQ permit may be necessary.

If you will be unable to meet this standard 6 month corrective action timeframe, a written response must be submitted to the EPA within 30 days of receipt of this letter. This response must contain the following:

- 1. The public water system name and number;
- 2. Description of why you will be unable to meet the standard 6 month timeframe;
- 3. Description of the corrective action(s) to be taken to address each significant deficiency; and
- 4. A schedule including specific proposed dates for completing <u>each</u> corrective action. This schedule may include both short-term interim steps and longer term completion dates.
- 5. Include a written response to the respective Wyoming Department of Environmental Quality District Engineer (WY DEQ) listed on the second page of the survey report, prior to making any improvements, if any of the aforementioned deficiencies are followed by an asterisk (\*). The asterisk indicates that a WY DEQ permit may be necessary.

If you have any questions regarding a significant deficiency or your corrective action plan, contact Ms. Gail Franklin. Ms. Franklin will provide you with a confirmation email or letter after receiving your response if you proposed a different corrective action timeframe.

The sanitary surveyor also identified at least one recommendation to improve the operation of the water system and to protect public health. While not required, EPA recommends that all such items be corrected. Please see the enclosed Sanitary Survey report for any recommendations.

Please contact us if your system has a change in the treatment process, you add or remove a water source, there is a change in the number of people served or number of water connections, or different contact information becomes available for your water system. This allows us to keep you up to date on monitoring requirements and keeps our inventory current. To access the EPA's change form, use this link and send us the completed form or give us a call.

http://www2.epa.gov/region8-waterops/wyoming-public-water-system-change-form

Thank you for your cooperation during the sanitary survey. If you have any questions regarding the sanitary survey, please call Jim Gindelberger at 1-800-227-8917, ext. 312-6984. If you have questions on specific regulations, please refer to the brochure enclosed with this letter, which contains the names and phone numbers for all of the EPA drinking water staff.

Sincerely,

Aptalie (asmor for disekale)
Lisa Kahn, Unit Chief
Drinking Water Unit A

Enclosures

2015 EPA Region 8 WY SANITARY SURVEY FORM INVENTORY									
DATE OF SURVEY: 06/29/2015 COUNTY: Lincoln SURVEYOR NAME: J Kahlert									
PWS ID: <u>WY5601418</u>	SYSTEM NAME: Nordic Ranches	Water, LLC							
System representatives present at st Owner/Chief Operator	urvey: Ganelle "Gaye" Edwards.	EMERGENCY CONTACT Emergency Contact Name: Ganelle Gaye Edwards							
Others present: Tanya DeJournett,	Alternate Operator	Emergency cell phone: (307) 884-8181							
Comments: Jim Van Dorn, WARWS	Registered Circuit Rider	Emergency email address: nrw@silverstar.com							
		Title: Owner/Chief Operator							
Street: P.O. Box 5354; 370 Pit Run Road									
		City: Etna State: WY County: Lincoln Zip: 83118							
SYSTEM OWNER OR MUNICIPA	AL LEGAL REPRESENTATIVE	PRIMARY ADMINISTRATIVE CONTACT							
Addressee Name: Ganelle "Gaye" E	Edwards Company:	(to receive ALL correspondence from EPA)  Addressee: Ganelle "Gaye" Edwards							
Nordic Ranches Water, LLC		Title: Owner/Chief Operator							
Title: Owner/Chief Operator		Street: P.O. Box 5354; 370 Pit Run Road							
Street: P.O. Box 5354; 370 Pit Run		City: Etna State: WY County: Lincoln Zip: 83118							
City: Etna State: WY Zip: 83118		Administrative Contact Phone: (307) 654-2005 Fax: (NA)							
Owner Phone: (307) 654-2005 Fax	c: (NA)	Email Address: nrw@silverstar.com							
Email Address: nrw@silverstar.com									
ADDITIONAL (if a		PUBLIC WORKS DIRECTOR, CITY ENGINEER and/or WATER PLANT SUPERINTENDENT							
Addressee: <u>Tanya DeJournett</u>		Addressee: NA							
Title: Alternate Operator		Title:							
	Street: P.O. Box 5354; 370 Pit Run Road Street:								
City: Etna State: WY County: Lincoln Zip: 83118 City: State: County: Zip:									
Contact Phone: (307) 654-2005 Fa		Contact Phone: () Fax: () Email Address:							
Email Address: <a href="mailto:nrw@silverstar.com">nrw@silverstar.com</a>	Comments:								
DESIGNATED OPER	ATOR OF SYSTEM	ALTERNATE OPERATOR							
Name: Ganelle "Gaye" Edwards	TNO Contains (root as miles d)	Name: Tanya DeJournett							
Certified Operator? @   ✓ Yes   No  Treatment Cert. Level: 1		Certified Operator? ☐ Yes ☒ No ☐ Not required  Treatment Cert. Level: Distribution Cert. Level:							
Treatment Cert. Exp. Date: 12/2015	Distribution Cert. Exp. Date:	Treatment Cert. Exp. Date: Distribution Cert. Exp. Date:							
Cert. Authority: WDEQ	Cert. Authority:	Cert. Authority: Cert. Authority:							
Phone: (307) 654-2005		Phone: (307) 654-2005							
Email Address: nrw@silverstar.com		Email Address: nrw@silverstar.com							
Contract Operator*? ☐ Yes ☒ No  Date contract ends:		Comments:							
Comments:		Go to: http://deq.state.wy.us/wqd/www/opcert/index.asp Click on: Check Facility Records							
Go to: http://deq.state.wy.us/wqd/www Click on: Check Facility Records then Cli		Click on: Check Facility Records Click on: Check Operator Records							
WATER SYSTEM ( for operator)	CLASSIFICATION	WATER SYSTEM CLASSIFICATION from PWS Inventory							
·	ystem Treatment Classification Level: 1								
•	stem Distribution Classification Level: 1 NTNC = Non-Transient Non-Community								
Comments:									
Go to: http://deq.state.wy.us/wqd/www/opcert/index.asp									
Click on: Check Facility Records		Comments:							
SYSTEM PHYSIC	CAL ADDRESS	PHYSICAL LOCATION							
Street: 370 Pit Run Road		Physical Location and Directions: From downtown Etna, Wyoming, at the							
City: Etna State: WY Zip: 83118		intersection of US-89 and CR-169, proceed south on US-89 for 0.5 miles							
to Pit Run Road which is just past the Etna Elementary School, and turn right (west). Continue to the gravel pit gate house.									

DEQ DISTRICT ENGINEER	COUNTY AND/OR CHS SANITARIAN							
Mark Baron, P.E., District Engineer	Dru Haderlie, CHS Sanitarian							
Phone: 307-335-6962	Phone: 307-279-3276							
Email: mark.baron@wyo.gov	Email: dru.haderlie@wyo.gov							
PERIOD OF OPERATION	SERVICE CONNECTIONS							
∀ear-round	Total Service Connections (Active and Inactive): 171							
Part of the year	Total Residential: 164  How many residential connections are for year-round residents: 164							
From to	Total Non-Transient (non-residential): 0  Total Transient: 0							
Is this PWS operating with a lease on Federal land? ☐ Yes ☒ No	Service Connections Metered? ☐ Yes ☐ No							
If yes, Federal land name:	Number of metered service connections: 164							
Comments:	Comments:							
OWNER TYPE  1 Federal Government	POPULATION DIRECTLY SERVED (do not include populations of consecutive PWSs)							
2 Private: Subdivision, Investor, Trust, Cooperative, Water Association, etc.	Residential Population: 574							
☐ 3 State Government	(Number of year-round residents utilizing PWS)							
4 Local Government Authority: Commission, District, Municipality, City, etc.	Non-Transient Population:  (Number of the same persons utilizing PWS Daily for							
5 Mixed Public/Private	6 months of the year – i.e. students, employees)  Transient Population:  NA							
6 Native American Indian Tribes & Reservations	(Average number of transient persons served by PWS							
7 Other	daily during peak 60 days of operation – i.e. customers, visitors)							
Comments:	Does the water system serve at least 25 individuals daily at least 60 days of the year (does not need to be consecutive days)?   ☐ Yes ☐ No							
	☐ If the population has significantly changed since the last Survey or current inventory sheet, recommend EPA send new Basic Information Form (BIF)							
	Comments (source(s) of population info): Census							
SERVICE CATEGORY (check all that apply)	SOURCES (check all that apply)							
☐ AP Airport ☐ PC Picnic Area	☐ SW = Surface Water ☐ SWP = Surface Water Purchased							
☐ BA Bathing/Swimming ☐ RA Rest Area ☐ BR Bar ☐ RC Recreation	☐ GWP= Groundwater ☐ GWP= Groundwater Purchased							
☐ CG Campground ☐ RS Residential ☐ CH Church ☐ RT Restaurant	☐ GWUDI = Ground Water Under the Direct Influence of Surface Water							
DC Daycare Center RV RV Park	If mixed, does GW receive full SW Treatment? ☐ Yes ☐ No.							
□ DR Dude Ranch       □ SC School         □ HS Hospital       □ SD Subdivision         □ IB Interstate Bottler       □ SK Ski Area	Is the current water source adequate in quantity?  ☑ Yes ☐ No Describe:							
☐ IF Industrial/Agricultural ☐ SS Service Station ☐ IN Institution ☐ US Water User's Association ☐ LB Local Bottler ☐ VC Visitor Center	Have there been any interruptions in service since the last survey?  Yes No Describe:							
☐ LO Lodge ☐ VM Vending Machine ☐ MA Marina ☐ WH Water Hauler	Have there been reports of a water borne disease (2 or more people)?  Yes No Describe:							
MO Motel/Hotel  Have there been any changes to the water system since the last s								
Primary Service Category Description: Residential  Comments: Are there any changes that are planned?  Yes No Describe: No Describe: Add another subdivision with 56 ta								
	Comments:							
SUMMARY (Describe the water	er system in a paragraph or two)							
The Nordic Ranches Water, LLC system is classified as a community grou								
The following abbreviations will be used throughout this document: NI = no information, NA = not applicable, NR = not requested,  @ = potential significant deficiency.								

### SIGNIFICANT DEFICIENCIES

Significant deficiencies include, but are not limited to, defects in the design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system, that EPA determines to be causing, or have the potential for causing, the introduction of contamination into the water delivered to consumers. Please note the instructions for responding to significant deficiencies in the attached cover letter. Failure to provide a response to EPA could result in a violation.

1) Well ID: WL01 - Well #1, Well #2, and Well #4

Lack of a sanitary seal on the well casing. (see photos #1, #2, and #3)

To prevent contamination of the well, the well must be fitted with a functioning sanitary seal that is tightly bolted does not allow contamination to enter the well.

- 2) Gravity Tank ID: ST01 & ST02 Storage Tanks 4x10K and StorageTanks 3x10K Combined Overflow on finished water storage tank discharges at improper height\*. (see photo #4) Overflow must be piped to an elevation between 12 and 24 inches above the ground surface and discharge over a drainage inlet structure, splash plate, or engineered rip-rap.
- 3) Gravity Tank ID: ST01 & ST02 Storage Tanks 4x10K and Storage Tanks 3x10K Combined Overflow on finished water storage tank improperly constructed\*. (see photo #5) Overflow must discharge over a drainage inlet structure, splash plate, or engineered rip-rap.
- 4) Gravity Tank ID: ST01 Storage Tanks 4x10K

Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #6)

Below Ground Tanks (buried or partially buried): The tank hatch must be elevated a minimum of 24 inches above the top of the tank surface or ground surface, whichever is higher.

5) Gravity Tank ID: ST02 - Storage Tanks 3x10K

Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #7)

Below Ground Tanks (buried or partially buried): The tank hatch must be elevated a minimum of 24 inches above the top of the tank surface or ground surface, whichever is higher.

- 6) Gravity Tank ID: ST01 &ST02 Storage Tanks 4x10K and Storage Tanks 3x10K
  - Hatch on Finished Water Storage Tank Improperly Constructed\*. (see photo #8)

The tank hatch must be fitted with a solid *watertight* cover which extends down around the frame at least two inches.

7) Low pressure or loss of pressure (less than 20 psi)\*.

The PWS reported that the pressure coming off the tanks was 20-25 psi under normal conditions and that there were service connection(s) near the tanks where the residents have installed booster pumps on the customer's side of the meter. It is likely that pressures during peak flow may drop below 20 psi.

Presently, some areas of the distribution system have pressure less than 20 psi. This low pressure creates significant risk for backflow and system contamination. In order to correct this significant deficiency, you must identify the cause(s) of the low pressure and provide documentation of how it was corrected.

### **RECOMMENDATIONS**

### 1) Improvements and Changes to the System

To assure that improvements and additions to your water system comply with regulations governing public water supplies, the plans and specification for significant improvements should be submitted to the Wyoming DEQ District Engineer for review. DEQ contact information is provided on page 2 of this report.

When making changes to the drinking water system, or changing the water system configuration, please fill out the **Wyoming System Change Form** that is located at the following EPA website: <a href="http://www2.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms#chg">http://www2.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms#chg</a>. Once on that page scroll down for Change Form. Sign the form and then submit it to EPA.

### **2) Security** (see photo #9)

The survey noted that there was no security fencing around the storage tanks.

Water system facilities should be protected against vandalism and unauthorized entry. They should not be accessible by the public. The perimeter of all properties should have security-type fencing, locks, and other precautions to prevent trespassing.

#### **SOURCE DATA** ACTIVE (PHYSICALLY CONNECTED) WELLS AND WELL PUMPS NA (if well is GWUDI and fully treated as SW, these will be recommendations) Well Name: Well #1 Well #2 Well #4 Well owner (if different than system owner): Facility ID (from PWS inventory, e.g., WL01): WL04 WL01 WL02 Well Location: (well house, well pit, pitless adapter, Pitless Adapter Pitless Adapter Pitless Adapter combination, driveway/parking lot, other) Does system want this well to be considered inactive? @ ☐ Yes ☒ No ☐ Yes ☐ No ☐ Yes ☐ No ⊠ Yes □ No ⊠ Yes □ No ⊠ Yes □ No Adequately protected from vehicle damage? @ ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA If well is located in a pit or vault, is the pit or vault completely watertight? If no, is the pit or vault completed with drainage or a ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA sump pump for permanent or portable use? @ If applicable, indicate type (permanent pump, portable Type: \_\_\_\_ Type: \_\_\_ Type: \_\_\_ pump, or drainage) Is the pit located in a building? ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA UW76226/UW95148 Enl. WY DEQ and/or WY SEO permit #: UW108464 UW173583 Are there any approved WY DEQ Chapter 12 variances for ☐ Yes ☐ No ☐ Yes 🛛 No ☐ Yes ☐ No this well? If yes, describe what type of variance was approved. Total Well Depth (ft): 360 <u>550</u> 603 Depth range of shallowest casing perforations (ft): Open Hole: 220 to 360 220 to 260 255 to 270 Actual yield (gpm): <u>35</u> 120 <u>85</u> Well log or Statement of Completion on site? (If yes, please copy or photograph and submit with report) **Well Construction** Does SW runoff drain away from the wellhead (including wells in pits or vaults)? @ Does well casing terminate at least 12" above the concrete ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA floor? @ Does the well casing terminate at least 18" above the natural ground surface? @ What is the actual casing height (inches)? 18 31.5 19 Any holes or openings observed in the well or its ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA appurtenances? @ If yes, describe. ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No Does the well have a sanitary seal with tightly bolted cap? @ (May need operator to open well cap to verify; explain Unknown Unknown Unknown why if unable to verify) Loose well cap bolts Loose well cap bolts Loose well cap bolts Is well vented (vent not required)? What is the height from the ground level to the screen of 28.5 Approximately 40 <u> 26.5</u> the vent (inches)? Does the vent terminate at or above the top of the ⊠ Yes □ No □ NA casing or pitless unit? @ Is vent facing downward? @ Vent screened with #24 mesh? @ Is there a source water sample tap for GWR compliance? ☐ Yes ☐ No ☐ NA Is there an air release/vacuum relief valve (not required)? ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA **Discharge Piping Termination** - In a downward position? @ ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA - At least 8" above the floor? @ ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA - Screened with #24 mesh? @ ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA Comments:

#### **SOURCE DATA** ACTIVE (PHYSICALLY CONNECTED) WELLS AND WELL PUMPS NA (if well is GWUDI and fully treated as SW, these will be recommendations) Well Name: Well #1 Well #2 Well #4 **Well Pumps** Submersible Pump? Other type of pump? ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA (if other, describe and indicate location in the comment field below) NSF-60 lubricant used? ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA Operable and in good condition? Yes □ No □ NA Maintenance program in place? Is the external pump subject to flooding? @ ☐ Yes ☐ No ☒ NA ☐ Yes □ No ⊠ NA ☐ Yes ☐ No ☒ NA Spare parts available? ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☒ NA ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA Emergency power available? Well #4 is run once per Comments month, for maintenance purposes only. Are there any sources of pollution near the wells which could impact water quality? @ No If yes, indicate impacted well(s) and provide general location and comments: \_ (Examples: Septic systems, chemical storage/mixing facilities, agriculture activities, industrial activities, cleaning supplies, oil/fuel, etc) (please locate on aerial map if possible) Mice or other animals and their droppings in immediate area @ ☐ Yes ☒ No Are there seasonal variations in the quantity of the water? ☐ Yes ☒ No Are there seasonal variations in the quality of the water? ☐ Yes ☒ No Comments: SOURCE DATA **EMERGENCY BACKUP SOURCE WATER** Describe any backup source water possibly available during an emergency to the PWS, or indicate none: None Is the backup water source physically disconnected from the water system? ☐ Yes (if this is a raw water source and is still physically connected to the system, then complete the applicable source data section) Backup source name: Facility ID (from PWS Inventory, e.g., IN01, WL01, etc.): WY DEQ permit number: WY SEO permit number: Please copy or photograph any available construction diagrams or "as-builts" and submit with the sanitary survey report Are there any sources of pollution near the water source (e.g., agriculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could impact water quality? @ Yes ☐ No If yes, provide general location and comments: ☐ Yes ☐ No \_\_ Are there seasonal variations in the quantity of the water? ☐ Yes ☐ No \_ Are there seasonal variations in the quality of the water?

GRAVITY TANKS 🗆 NA						
(Instructions to Surveyor, delete before submitting to EPA) Complete for all tanks at ground water systems and consecutive systems. Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells or other finished water tanks.)						
Tank Name:	Tanks 4x10K	Tanks 3x10K				
Tank ID (from PWS inventory, e.g., ST01):	<u>ST01</u>	<u>ST02</u>				
Tank owner (if different than system owner):						
Location (indoor or outdoor), Description:	<u>Outdoor</u>	<u>Outdoor</u>				
Date put into service	#1: 1994, #2-4: 1999	2008				
Tank Type  Below ground (buried or partially buried)  Ground level  Elevated (pedestal or standpipe)						
Tank is constructed of:  Concrete Steel Fiberglass Other		□ ⊠ □				
What type of water is stored (GW systems only)?	☐ Treated ☐ Raw	☐ Treated ☐ Raw	☐ Treated ☐ Raw			
Storage Volume (gallons)?	4 x 10,000	3 x 10,000				
Are there any approved WY DEQ Chapter 12 variances for this tank? If yes, describe what type of variance was approved.	☐ Yes ☒ No ——	☐ Yes   No ——	☐ Yes ☐ No			
Is the site subject to flooding? @	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No			
Can the tank be isolated from the system?	⊠ Yes □ No	⊠ Yes □ No	☐ Yes ☐ No			
Is the water level indicator accurate?	⊠ Yes □ No	⊠ Yes □ No	☐ Yes ☐ No			
Does the tank appear structurally sound? @			☐ Yes ☐ No			
Does the foundation appear structurally sound? @		⊠ Yes □ No	☐ Yes ☐ No			
Are there any unprotected openings in the tank (breaches, leaks, etc)?	☐ Yes  ☐ No	☐ Yes   No	☐ Yes ☐ No			
If the tank is more than 10 years old, was it cleaned and inspected within the last 10 years? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA			
When and how was the tank last cleaned and inspected?	2008 scrubbed, sediments to drain	2008 scrubbed, sediments to drain				
Who performed the cleaning and inspection?	<u>Self</u>	<u>Self</u>				
How was the tank disinfected after cleaning?	the tank disinfected after cleaning? <u>Shock Chlorination</u> <u>Shock Chlorination</u>					
Surveyor able to view report and confirm date?	☐ Yes	☐ Yes	☐ Yes ☐ No			
<u>Overflow</u>						
Is the overflow accessible for inspection? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA			
Overflow has a #24 mesh screen OR a duckbill valve OR a properly sealed flapper valve with screen inside (EPA recommends a #24 mesh screen)? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA			
Does the overflow line terminate no less than 12 inches but no more than 24 inches above the ground surface? @	☐ Yes ☒ No ☐ NA	☐ Yes ☒ No ☐ NA	☐ Yes ☐ No ☐ NA			
Does the overflow discharge over an inlet structure, splash plate, or engineered rip-rap? @	☐ Yes ☒ No ☐ NA	☐ Yes ☒ No ☐ NA	☐ Yes ☐ No ☐ NA			
Is the discharge visible?	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA			
Does the overflow have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA			
Comments about overflow:						
Drain Line						
Combined overflow and drain pipe? (If yes, skip drain questions)	⊠ Yes □ No □ NA	☑ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA			
Is the drain accessible for inspection? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA			
Is there #24 mesh screen on the drain pipe?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA			
Does water accumulate in the drain discharge area?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA			
Does the drain pipe have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA			

GRAVITY TANKS 🗆 NA					
(Instructions to Surveyor, delete before submitting to EPA) Complete for all tanks at ground water systems and consecutive systems. Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells or other finished water tanks.)					
Tank Name:	Tanks 4x10K Tanks 3x10K				
Does the drain pipe terminate between 12 and 24 inches above a drainage area?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
Does the drain pipe terminate above an inlet structure, splash plate, or engineered rip-rap?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
Comments about drain:					
<u>Air Vent</u>					
Is the vent accessible for inspection? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
For above ground tanks (ground level or elevated/standpipe):					
Is there #24 mesh screen? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
If not #24 mesh screen, what size mesh is the screen?					
Does the tank have a vacuum/pressure relief valve or other mechanism to prevent tank damage?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
Downturned vent: Is the vent at least 24" or 3 pipe diameters above the roof? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
For non-downturned vents: Is there a solid cover down to the bottom of the vent screen? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
For non-downturned vents: Is the screen at least 8" above the roof surface? @	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☒ NA	☐ Yes ☐ No ☐ NA		
Below Ground Tanks (buried or partially buried)					
Is air vent covered with #24 mesh screen? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes  ☐ No ☐ NA	☐ Yes  ☐ No ☐ NA	☐ Yes ☐ No ☐ NA		
Does the air vent terminate downward? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Is the air vent at least 24" above the roof or ground surface (whichever is higher)? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Comments about air vent:					
Access Hatch					
Is the hatch accessible for inspection? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Is the hatch raised at least 24" above the roof or ground (whichever is higher) on below ground tanks (buried or partially buried) or 4" above the roof for above ground tanks (ground level or elevated)? @	☐ Yes ☒ No ☐ NA	☐ Yes ☒ No ☐ NA	☐ Yes ☐ No ☐ NA		
What is the height of the access hatch above the roof or ground surface?	Buried to 8 in	<u>13 to 19 in</u>	in		
Does the hatch have a shoe box lid? @	☐ Yes ☒ No ☐ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Is the lid tight and sealed with a rubber gasket? @	⊠ Yes □ No □ NA	☐ Yes ☒ No ☐ NA	☐ Yes ☐ No ☐ NA		
Is the hatch locked? @	⊠ Yes □ No □ NA	⊠ Yes □ No □ NA	☐ Yes ☐ No ☐ NA		
Comments about access hatch:	Bolted hatches. Tank #1 hatch is buried.	The northern and southern most of these 3 tanks had spider webs in the access hatch indicating that the hatch seal was not competent.			
Comments:					

DISTRIBUTION DATA						
Please provide a brief description of the distribution system, including source to use piping: 4 to 8-inch PVC main lines and 3/4-, 1-, and 1 1/2-inch service lines						
What are the location and estimated linear feet of asbestos pipe in the distribution system? None						
Have lines broken due to freezing?    Yes    No    One meter  Have lines broken due to traffic load?    Yes    No						
Are lines properly disinfected after repairs are made? @ \( \sum \) Yes \( \sup \) No \( \frac{Pellet chlorination}{Pellet chlorination} \)						
Is there at least 35 psi pressure in the distribution system at peak normal flow?   Yes   No   20 to 25 psi near tanks. Homes have booster pumps after meter.						
Is there at least 20 psi at all points in the system at all times? @ Yes 🗵 No						
Total number of days of storage (Summer)? NI						
Total number of days of storage (Winter)? NI						
Is the storage capacity adequate to meet current needs?   Is the storage capacity adequate to meet future needs?   Comments:						
Location, length, number, and flushing frequency for dead ends in the system: Several dead ends are flushed twice per year.						
Are distribution system ("as-built") drawings maintained (e.g., revised to show replacement or repair?)						
For systems that add a chemical disinfectant or receive disinfected water from a wholesaler:  NA   Yes No						
☐ Is test equipment available for measuring the chlorine residual in the distribution system? Describe equipment: ☐ Are reagents up to date? ☐ Does the operator know how to properly measure chlorine residual?						
Measured chlorine residual distribution system location:						
Indicate residual value measured at this distribution system location: By Surveyor:(mg/L) By PWS:(mg/L)						
Indicate if free or total chlorine was measured:						
It is recommended that a minimum residual of 0.5 mg/L total chlorine or 0.2 mg/L free chlorine be maintained.						

CROSS CONNECTION CONTROL				
	Yes	No	NA	
Does each severe hazard connection have the appropriate reduced pressure backflow assembly installed at the meter/service connection and approved air gap (twice the size of the supply pipe diameter but always greater than one inch)? If no, describe each severe hazard connection and its location. @			$\boxtimes$	
Severe hazard connections include radioactive materials processors, nuclear reactors, and sewage treatment plants/pump stations.				
<b>Does each high hazard connection</b> in the <u>treatment plant</u> or <u>distribution system</u> have the appropriate air gap or reduced pressure backflow assembly installed? If no, describe each high hazard connection and its location. @			$\boxtimes$	
High hazard connections include hospitals, medical/dental facilities, laboratories, mortuaries, large taxidermies, chemical suppliers/processing facilities, petroleum plants, food processing facilities, wastewater treatment plants, water fill points/loading stations, piers and docks, car washes, dry cleaners, direct connections to raw or non-potable water, and any service connection with an unapproved auxiliary supply.				
Do trailers or mobile homes connected directly to the PWS via a yard hydrant have a double check valve assembly at each connection?  connections have check valves.	$\boxtimes$			All service
Are any <b>frost-free hydrants</b> that drain into the soil directly connected to this PWS? connections have check valves.				All service
Are there any leaking system components in the water system not previously noted (e.g., air-release/vacuum relief valves)? @		$\boxtimes$		
Explain where and what was leaking:				
At Community PWS, do all low hazard connections have the appropriate double check valve assemblies installed at the meter or service connection?	; 			
Low hazard connections include mobile home parks, farms/dairies, ranches, and shopping centers.				
For Non-community Systems, do the following connections have the indicated type of backflow prevention assemblies?				
Stock tanks – approved air gap or atmospheric vacuum breaker at the tank? @			$\boxtimes$	
Threaded yard hydrants – pressure vacuum breaker, atmospheric vacuum breaker or double check valve assembly.			$\boxtimes$	
Does the water supplier have a record keeping program and management procedures to ensure:				
The installation and certification by test or inspection of all backflow preventers (BFPs) at new service connections		$\boxtimes$		
The annual passing test certification by a certified tester of all high-hazard BFPs at service connections.				

SAFETY				
	Yes	No	NA	
Personnel Safety				
Are all personnel trained in proper handling of all utilized chemicals and materials?			$\boxtimes$	
Are adequate masks, protective clothing, and safety equipment provided?				
Does the operator understand relevant Occupational Safety and Health Administration (OSHA) regulations (e.g., confined space, hazard communication, trenching/shoring, lock out/tag out)?				
Chlorine Gas Safety			$\boxtimes$	
Are there chlorine warnings posted on the outside of chlorine room doors?				
Do the doors open outward?				
Do they open to the exterior of the building?				
Are chlorine room doors equipped with crash bars?				
Are chlorine room doors equipped with viewports?				
Is there a leak detector in the chlorine room with an audible alarm?				
Are chlorine feed and storage areas isolated from other facilities?				
Are chlorine areas adequately ventilated?				
Are all chlorine cylinders adequately restrained?				
Are self-contained breathing apparatus available for use in chlorine emergencies?				
Where are they stored?				
Are they in good working condition?				
Are water system personnel adequately trained in the use and maintenance of the self-contained breathing apparatus?				
Are chlorine leak kits available and are all personnel trained in their proper use?				
Chemical Safety			$\boxtimes$	
Are oxidizers, corrosives, and flammables stored in separate areas and in closed, marked containers?			$\boxtimes$	
Are flammables stored in appropriate containers and cabinets away from combustion sources?			$\boxtimes$	
Is there adequate ventilation in the areas where solvents, aerosols, and chemical feeders are in use?			$\boxtimes$	
Are bulk storage areas physically isolated from treatment areas to prevent spills from entering treated or untreated water?			$\boxtimes$	
Is the fire department familiar with the facilities and their contents?	$\boxtimes$			

MANAGEMENT DATA				
	Yes	No	NA	
Are there rules governing new hookups to protect the integrity of this water system?	$\boxtimes$			
Are DEQ construction specifications followed?	$\boxtimes$			
Is the treatment plant being properly operated to prevent inadequately treated water from being sent to the distribution system? @			$\boxtimes$	
Does the system have arrangements in place to assure prompt supply and repair service?	$\boxtimes$			
Does the system have a current operations and maintenance manual which describes all procedures, equipment, sampling schedules and inspection data?	$\boxtimes$			
Is there a schedule for routine preventative maintenance for all facilities and equipment?	$\boxtimes$			Could not locate.
Does the system (treatment plant, finished water storage) have security measures in place (fencing, locks, lighting, alarms, etc.)?  no fencing around storage tanks.				Well caps secured,
Does the system have an emergency response plan (ERP) – system does not need to show the surveyor				
the ERPthat includes: @	$\boxtimes$			
- Emergency contact phone numbers?	$\boxtimes$			
- Procedures to respond to a pressure loss/water outage?	$\boxtimes$			
- Procedures to respond to a water contamination incident?	$\boxtimes$			
Is the ERP accessible to the operator on-site?	$\boxtimes$			
Is the system part of the state's WARN network?		$\boxtimes$		
Have you evaluated possible impacts to your system from extreme weather events?	$\boxtimes$			
If yes, what was the outcome? Wind, snow, and lightning are the biggest concerns.				
Are you interested in training on extreme weather events?	$\boxtimes$			
Have you evaluated your facilities to see if they are in the 100 and 500 year flood plains?	$\boxtimes$			
If yes, what was the outcome? Not in flood plain.				
What percentage of the utility's power comes from your own renewable energy sources? Zero				
% wind: % solar: % hydro:				

MONITORING AND RECORDS				
Total Coliform Rule (TCR) monitoring (all systems)	Yes	No	NA	
Does the operator know how to collect samples for total coliform analysis? (Review operator sampling procedure at time of survey to confirm)				
Does the operator know what to do in the event of a total coliform "unsafe" result? (Consult the "TCR/E-coli Positives" link on the Drinking Water Online site: <a href="http://www2.epa.gov/region8-waterops">http://www2.epa.gov/region8-waterops</a> )				
Are extra bottles available in case of need for repeat Total Coliform Rule (TCR) sampling?				
Does the system have a TCR sampling plan on file and available for the surveyor's review?	$\boxtimes$			
Is it up to date?	$\boxtimes$			
If subject to the Ground Water Rule (GWR), does the operator know:				
Within 24 hours of being notified of a <i>routine</i> TCR positive sample result, they must collect one triggered source water sample for <i>every</i> routine TCR positive sample at each active ground water source (e.g., three routine TCR positive samples requires the operator to collect three source water samples from <i>each</i> ground water source)?	<sup>1</sup> 🖂			
They will need to submit both:				
Repeat samples under the TCR (utilizing their regular lab form)?	$\boxtimes$			
<ul> <li>Source water samples utilizing the Ground Water Rule Sample Collection Form located on the Drinking Water Online site (<a href="http://www2.epa.gov/region8-waterops">http://www2.epa.gov/region8-waterops</a>)?</li> </ul>	$\boxtimes$			
Where to sample if they are required to sample all of their active ground water sources?				
Are extra bottles available in case of the need for GWR source sampling?	$\boxtimes$			
For Community and NTNC systems (including consecutives):				
Is there a Disinfection Byproducts Rule Monitoring Plan on-site available for the surveyor's review?				
- Is it up-to-date reflecting the current distribution system?				
<ul> <li>What types of maximum residual disinfectant levels (MRDLs) are measured (free, total or combined chlorine)?</li> </ul>			$\boxtimes$	
Does the system have a Lead & Copper sample siting plan on file and available for the surveyor's review?	$\boxtimes$			
- Is it up to date?	$\boxtimes$			
Does the operator know the location of each entry point to the distribution system?	$\boxtimes$			
Does the operator know how to properly label samples taken from the entry points?	$\boxtimes$			
Has the PWS completed the monitoring that is specified in the EPA-provided monitoring schedule so far for this calendar year?	$\boxtimes$			
Are copies of all monitoring results filed and readily accessible?				
Is the operator familiar with the Drinking Water Online ( <a href="http://www2.epa.gov/region8-waterops">http://www2.epa.gov/region8-waterops</a> ) and Drinking Water Watch ( <a href="https://sdwisr8.epa.gov/Region8DWW/JSP/loginForm.jsp">https://sdwisr8.epa.gov/Region8DWW/JSP/loginForm.jsp</a> ) websites created for their benefit?	$\boxtimes$			

PWS #: WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 1

Subject: Well #1 (WL01)

Comments: West view. The pump control building is visible in the background.

A loose well cap bolt is visible in this photo.



Subject: Well #2 (WL02)

**Comments:** Northeast view. A loose well cap bolt is visible in this photo.





**PWS #:** WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 3

Subject: Well #4 (WL04)

**Comments:** Northwest view. A materials storage yard is visible In the background. The loose well cap bolts are being tightened in this photo.



Subject: Tanks 4 x 10 K (ST01) and Tanks 3 x 10 K (ST02)

Overflow Outfall (Typical)

**Comments:** The screened overflow outfall has no measurable free fall and does not discharge over a drainage inlet

structure, splash plate, or engineered rip-rap.





**PWS #:** WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 5

Subject: Tanks 4 x 10 K (ST01) and Tanks 3 x 10 K (ST02)

Combined Overflow and Drain Outfall (Typical)

**Comments:** The two screened combined overflow and drain outfall heights shown are 15 and 30 inches above ground surface. The outfalls do not discharge over a drainage inlet structure, splash plate, or engineered rip-rap.

Photo#: 6

**Subject:** Tanks 4 x 10 K (ST01) Access Hatch (Typical)

**Comments:** This hatch is 8 inches above the ground surface. The other bolted access hatches were 5.5 and 2 inches above ground surface. One bolted tank hatch was buried.





**PWS #:** WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 7

**Subject:** Tanks 3 x 10 K (ST02) Access Hatch (Typical)

**Comments:** This hatch is 19 inches above the ground surface. The other bolted access hatches were 15.5 and 14 inches above ground surface.



Photo#: 8

Subject: Tanks 3 x 10 K (ST02) Access Hatch (Typical) Lid

Comments: The northern and southern most of the 3 newer tanks had spider webs in the access hatch neck (between the tank lid and the tank body) indicating that the hatch seal was not competent. Those webs did not show up in the photographs. However, this photo of the underside of the lid shows other spider webs (white material between the black sheet gasket and the lid lip) and an incompetent seal (rusty part of the lid where the black gasket does not extend to seal the lid).



**PWS #:** WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 9

Subject: Tanks 4 x 10 K (ST01) and Tanks 3 x 10 K (ST02)

**Comments:** Southwest view. The hatches and vents for the three newer below-ground tanks are visible in the middle part of the photograph. The four older tanks are buried in the foreground area. Recommend security fence be placed around the storage tanks.



Subject: Well #2 (WL02)

**Comments:** Southwest view. The pump control building with an emergency power generator is visible on the right of the well.





PWS #: WY5601418

System Name: Nordic Ranches Water, LLC

County: Lincoln Date: 06/29/2015

Photographer: Jason Kahlert, PG

Photo#: 11

**Subject:** Tanks 4 x 10 K (ST01) and Tanks 3 x 10 K (ST02)

**Comments:** Northwest view. The four older tanks are buried in the area at the center of the photograph, with their vents visible at right. One of the three newer below-ground tanks (see Photograph #9) is located in the area at lower left.

